

INTERNATIONAL SEARCH REPORT

PCT/US 03/24938

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Present claims 1-10 and dependent thereon relate to an extremely large number of possible compounds. In fact, with undefined terms like "alkyl", "acyl", "alkoxy", "aryl", "amino", "prodrugs", "HET" the claims contain so many options, variables and possible permutations that a lack of clarity and conciseness within the meaning of Article 6 PCT arises to such an extent as to render a meaningful search of the claims impossible.

There are inconsistencies in the drafting of the claims: claims 8 to 11 cannot be made dependent on claim 1 since they include terms and structures which are not encompassed by claim 1 (see below the interpretation of claim 1). Furthermore the rest R1 introduced in claim 8 is not defined. It seems that the second R2 in claim 8 is either superfluous or, if it is meant to be different to the first R2, should be redefined.

Consequently, the search has been carried out for those parts of the application which do appear to be clear and concise, namely the examples of claim 11 and the subject-matter for which the above disputed terms are to be strictly interpreted in their meanings usual to the skilled person since a first draft search revealed more than 400 compounds disclosed in more than 2000 documents (Rule 6 PCT clearly sets that the "claims shall not rely, in respect of the technical features of the invention, on references to the description or drawings"). Alkyl has been therefore understood and searched as an unsubstituted saturated hydrocarbon chain; acyl as an unsubstituted saturated alkyl carbonyl group; alkoxy as an alkyl-O-; aryl as an unsubstituted aromatic hydrocarbon system; amino as a NH₂ group; HET is given the meaning of claim 10 and the phenyl attached in position 3 of the benzopyranone cannot carry more than 2 substituents (R15 and R16).

The term "prodrug" is not an appropriate definition for a specific subject-matter to be claimed: it is a functional definition which attempts to define a chemical compounds in terms of a result to be achieved. This is not allowable (article 6 PCT). This term does not give any specific technical guidance for the selection of the suitable derivatives in the description (only glycopyranosides are mentioned page 15) and any proven general knowledge to show which derivatives are suitable prodrugs. Such a term can be seen as a mere invitation to the skilled person to perform a research program in order to find the suitable variants, a situation which imposes an undue burden on the skilled person (i.e. due to an insufficient disclosure in the sense of article 5 PCT) even when simple in vivo or in vitro tests are available to determine whether or not a particular compound is covered by the claims. Claim 1 has therefore also been searched incompletely, omitting the term "prodrugs" as far as its meanings are not encompassed in the searched scope defined as above.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

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